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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,870	12/05/2005	Takamasa Iwaki	704076.000060	6383

29540 7590 10/15/2010

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EXAMINER	
NGUYEN, SON T	
ART UNIT	PAPER NUMBER
3643	

NOTIFICATION DATE	DELIVERY MODE
10/15/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/539,870	IWAKI ET AL.	
	Examiner	Art Unit	
	Son T. Nguyen	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12-14,16-19 and 26-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,12-14,16-19,26-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1,3-10,12-14,16-19,26-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. For claims 1 & 10, the limitation "solid" is not described in the specification, especially in regards to a sheet because solid is usually associated with something firm or hard, thus, a sheet as in the present invention is not considered to be solid.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1,3,5-9,27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugo (5641482) in view of Ito et al. (5939088).

For claim 1, Sugo teaches a floor mat laid in a small animal rearing cage for housing and rearing a small animal (col. 2,line 2), comprising a solid and reusable sheet

(the mat is reused until disposed of) having a recoverable deodorization capacity when washed alone or with alkaline or acidic substances (the deodorizer still lingers around to absorbed ammonia or the like from the animal's waste, see examples); wherein the sheet is formed of an improved cellulose fabric (col. 1,lines 56-66,col. 2,lines 1-2) comprising cellulose (col. 1,lines 56-66,col. 2,lines 1-2) having carboxyl groups (col. 2,lines 15-16) chemically bound (by graft polymerization, col. 2,lines 19-25) thereto wherein the cellulose having carboxyl groups chemically bound thereto is formed in a shape of a sheet; wherein the sheet has a temperature holding property to a degree that can keep the body temperature of the small animal (because of the material the sheet is made of, there will be some degree of temperature holding property).

However, Sugo is silent about the sheet having randomly formed, meandering and overlapped folds of various shapes and sizes, a plurality of rigids and grooves are formed on the folds to make walls for assuring a sleeping floor, excretion place, and birth and breeding place for the small animal, and having a flexibility to a degree that can wrap the body of the small animal and a size that covers at least the entire abdomen of the small animal, where the flexibility and size are such that the sheet is capable of being seamlessly folded onto itself, even after being laid down in a form where the sheet is randomly folded onto itself so as to form a fold large enough for the small animal to hide at least half of its body.

Ito et al. teach in the same field of endeavor of floor mat for animal as Sugo in which Ito et al.'s mat is a sheet 12 having randomly formed, meandering and overlapped folds of various shapes and sizes, a plurality of rigids and grooves are formed on the

folds to make walls for assuring a sleeping floor, excretion place, and birth and breeding place for the small animal (see fig. 4), and having a flexibility to a degree that can wrap the body of the small animal and a size that covers at least the entire abdomen of the small animal, where the flexibility and size are such that the sheet is capable of being seamlessly folded onto itself, even after being laid down in a form where the sheet is randomly folded onto itself so as to form a fold large enough for the small animal to hide at least half of its body (see fig. 4 for the flexibility of the sheet being folded onto itself seamlessly). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a sheet with the features as taught by Ito et al. in place of the sheet of Sugo in order to provide a sheet that is flexible and able to wrap around the animal for warmth.

For claims 3 & 7, Sugo as modified by Ito et al. (emphasis on Sugo) teaches wherein the sheet has a water absorption property (col. 1,line 62) and deodorization property (col. 2,lines 46-52 and see title of invention).

For claims 5 & 8, Sugo as modified by Ito et al. (emphasis on Sugo) teaches wherein the cellulose having carboxyl groups chemically bound thereto is formed with a graft polymerization method (col. 2,lines 9-55).

For claims 6 & 9, Sugo as modified by Ito et al. (emphasis on Sugo) teaches amount of carboxyl groups per dry fabric (col. 2,lines 17-18, and in example 2). However, Sugo as modified by Ito et al. does not specifically teach wherein improved cellulose fabric contains 40 to 140 millimole carboxyl groups per 100 g of dry fabric. It would have been obvious to one having ordinary skill in the art at the time the invention

was made to have the improved cellulose fabric of Sugo as modified by Ito et al. contains 40 to 140 millimole carboxyl groups per 100 g of dry fabric, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect (more potent or not) is achieved involves only routine skill in the art.

For claim 27, Sugo as modified by Ito et al. (emphasis on Sugo) teaches wherein the cellulose having carboxyl groups chemically bound thereto is formed with a graft polymerization method (col. 2,lines 9-55).

5. **Claims 4 & 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugo as modified by Ito et al. as applied to claim 1 above, and further in view of Newton (2004/0163603).**

Sugo as modified by Ito et al. is silent about wherein the sheet has a tearing resistance.

Newton teaches in the same field of endeavor of floor mat for animal as Sugo as modified by Ito et al., in which Newton employs a pet pad cover comprising a sheet that is made out of a tear resistance material ([0011]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a tear resistance material as taught by Newton for the sheet of Sugo as modified by Ito et al. in order to prevent an animal from tearing the sheet.

6. **Claims 10,13,14,16-19,26,29,31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugo (as above) in view of Ito et al. (as above) and Otsuji et al. (2001/0009142).**

For claim 10, Sugo as modified by Ito et al. teaches the floor mat with the features as explained above (teaching of Sugo) and the sheet with flexibility and folding property as explained in the above (teaching of Ito et al.). In addition, Sugo as modified by Ito et al. teach wherein the sheet has a temperature holding property to a degree that can keep the body temperature of the small animal (because of the material the sheet is made of, there will be some degree of temperature holding property). Not explained is the small animal rearing cage comprising a rearing box having a floor and a wall provided at a circumference of the floor.

Otsuji et al. teach in the same field of endeavor of floor mat for animal as Sugo as modified by Ito et al., in which Otsuji et al. employ a rearing box 2 having a floor and a wall provided at a circumference of the floor, and a mat 1 laid therein the box, the rearing box for restraining the small animal therein. It would have been obvious to one having ordinary skill in the art at the time the invention was made to place the sheet of Sugo as modified by Ito et al. in a rearing box as taught by Otsuji et al. in order to keep the sheet confined so that the animal will not drag the sheet everywhere.

For claims 13 & 18, Sugo as modified by Ito et al. and Otsuji et al. (emphasis on Sugo) teaches amount of carboxyl groups per dry fabric (col. 2,lines 17-18, and in example 2). However, Sugo as modified by Ito et al. and Otsuji et al. does not specifically teach wherein improved cellulose fabric contains 40 to 140 millimole carboxyl groups per 100 g of dry fabric. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the improved cellulose fabric of Sugo as modified by Ito et al. and Otsuji et al. contains 40 to 140

millimole carboxyl groups per 100 g of dry fabric, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect (more potent or not) is achieved involves only routine skill in the art.

For claims 14,17 & 29, Sugo as modified by Ito et al. and Otsuji et al. (emphasis on Sugo) teaches wherein the cellulose having carboxyl groups chemically bound thereto is formed with a graft polymerization method (col. 2,lines 9-55).

For claims 16 & 26, Sugo as modified by Ito et al. and Otsuji et al. (emphasis on Sugo) teaches wherein the sheet has a water absorption property (col. 1,line 62) and deodorization property (col. 2,lines 46-52 and see title of invention).

For claims 19 & 31, it appears from fig. 4 of Ito et al. that the sheet is larger than the rearing box of Otsuji et al. since the sheet of Ito et al. is folded several times. However, if not, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sheet of Sugo as modified by Ito et al. and Otsuji et al. be larger in size than the floor area of the rearing box in order to better soak up urine or the like by provide coverage for the whole floor area, and to provide a larger cushion area for the animal.

7. **Claims 12 & 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugo as modified by Ito et al. and Otsuji et al. as applied to claim 10 above, and further in view of Newton (as above).**

Sugo as modified by Ito et al. and Otsuji et al. is silent about wherein the sheet has a tearing resistance.

Newton teaches in the same field of endeavor of floor mat for animal as Sugo as modified by Ito et al., in which Newton employs a pet pad cover comprising a sheet that is made out of a tear resistance material ([0011]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a tear resistance material as taught by Newton for the sheet of Sugo as modified by Ito et al. and Otsuji et al. in order to prevent an animal from tearing the sheet.

Response to Arguments

8. Applicant's arguments filed 8/24/2010 have been fully considered but they are not persuasive.

Applicant argued that claims 1, 3-10, 12-14,16-19, and 26-31 were rejected under 35 USC §112 first paragraph as failing to comply with written description requirement regarding the claim limitation in claims 1 & 10 for the term "solid." Applicants disagree with the Examiner's explanation that something solid is usually associated with something firm and hard. There are many "solid" objects that are made of very flexible material. Support for the term "solid" is clearly shown in Figures 1-2, and depicts the invention is not a mass of spheres or flakes or other non-solid objects.

According to the definition from www.dictionary.com, the word solid is defined as "firm, hard, or compact in substance; not flimsy, slight, or light, as buildings, furniture, fabrics, or food; substantial." No where in the dictionary does it relates the word "solid" to something that is flexible as interpreted by Applicant. Even the latter definition clearly state that solid is not flimsy as in fabric, thus, this clearly suggest that a fabric (which is

a very flexible material), as in applicant's invention, is not considered a solid material. Applicant can be his own lexicographer; however, the term "solid" as employed should be defined in the specification so as to define what applicant meant by "solid". Applicant has failed to do so in the specification. There is nothing in the specification to explain the importance of this added term of argument to the claim. One looking at the figures would not come up with the conclusion that the fabric material of applicant is considered a solid material.

Sugo is silent as to a temperature holding property sufficient to hold the body temperature of small animals. There is no teaching or suggestion in Sugo to support the Examiner's argument that Sugo teaches a temperature holding property.

As explained in the above and in the final rejection mailed on 7/24/09, the mat of Sugo as modified by Ito et al. is capable of providing flexibility and temperature holding property because it has all the structural elements as claimed by Applicant, thus, it can be flexible and temperature warming. In addition, a material such as that of a fabric mat (taught by both Sugo and Ito) would automatically provide temperature holding property, for such is the characteristic of the material. Furthermore, since Applicant failed to establish the degree of temperature holding property, "sufficient" is broad and infinite because what is really considered "sufficient". It would depends on the type of animal, the material, the thickness, thus, by merely claiming sufficient is broad. Moreover, Applicant argued about "thermo-conductive" property, however, this limitation is not claimed. Claiming temperature holding property is not the same as thermo-conductive

property, thus, Applicant is attempting to claim something that is not a part of the invention nor is it disclosed.

Applicant argued that Sugo teaches away from the claimed composition having the claimed flexibility property. Sugo teaches a formed article comprising a base material having a "aggregate" form, such as a mat, non-woven fabric, or a mass of spheres or flakes. It is well know that "aggregate" means a mass sum or whole, crowded or massed into a dense cluster. (see e.g., http://www.thefreedictionary.com/aggregate). Such a composition with a dense structure could not provide the flexibility or be the composition claimed.

Sugo does not only describes a deodorizing material and a process for producing the same as alleged by Applicant. Clearly, from col. 2,lines 1-2, Sugo teaches that his material can be in various form such as a mat, which is the same as claimed by Applicant, i.e. a floor mat. A mat used for animal bedding is known in the art for being a flexible sheet of material and not a rigid material. Of course, the degree of flexibility depends, however, Applicant's claimed language does not define such degree of flexibility, hence, a mat (such as that taught by Sugo) is considered a flexible material. Note that the claimed language states "flexibility to a degree", which is extremely broad and can cover a wide range of degree of flexibility. In addition, in the rejection above and in the non-final rejection mailed on 11/28/08, the Examiner never stated that Sugo teaches the mat being a sheet, thus, Applicant is arguing something that is irrelevant to that of Sugo. In any event, a sheet teaching for bedding is nothing new in the art, and as demonstrated, taught by Ito et al. Hence, one of ordinary skill in the art would realize

that Sugo teaches a mat but does not state that the mat is in a form of a sheet, to which Ito et al. teach, therefore, one would be motivated to combine Ito et al. to that of Sugo for a teaching of a mat being a sheet to provide a sheet that is flexible and able to wrap around the animal for warmth. By having the mat of Sugo be a sheet as taught by Ito et al. in no way changes the inventive concept of Sugo because Sugo teaches that the article can be in the form of a mat and mats are known to be in a sheet form and flexible.

Applicant argued that Ito reference does not fill the deficiencies of the Sugo reference. Figure 4 of Ito does not teach the flexibility property claimed as the Examiner contends. In fact Ito teaches away from the claimed invention and flexibility property claimed by requiring the component to be placed in a capsule that is activated when broken. (see Col. 3, lines 64-67).

Fig. 4 of Ito clearly shows randomization of the sheet. The sheet 12 of Ito is randomly formed, meandering and overlapped folds of various shapes and sizes, where a plurality of rigids and grooves are formed on the folds to make walls because as clearly shown in fig. 4. There is no specific pattern of folding or uniform folding for the sheet 12 of Ito because the overlapping sheet creates area of different sizes and shapes. In addition, Ito was not relied on for sheet filled with capsule into which a liquid or powder is filled and when broken by external forces disperses the component to indicate an exact point where the sheet got wet or damaged. Clearly, the action above explained what Ito was relied on for, thus, Applicant is arguing something that was not relied on for Ito.

Appplicant argued that Newton clearly teaches away from what the Applicant claims by disclosing a "disposable and unfolded" sheet that is required by Newton's disclosure to perform the functions as recited in Newton. Newton's tear damage property recited by the examiner is at the cost of the Applicant's claimed flexibility property. There is no flexibility in Newton because the sheet clearly needs to be flat and unbroken in Newton.

Newton was not relied on for the features as argued. As mentioned in the above rejection, Newton is relied on for a tear resistance animal bedding, thus, see above for explanation.

Applicant argued that Otsuji does not disclose a rearing box having a floor and a wall to restrain a small animal therein as claimed. In fact, the structure in Otsuji could not restrain the animal at all because there are no walls in the tray (2) to prevent a small animal from escaping the structure. In contrast, the Applicant claims a rearing box having a floor and a wall for restraining the small animal within the rearing cage.

Otsuji was not relied on for the features as argued. As mentioned in the above rejection, Otsuji is relied on for know concept of putting an animal bedding mat in a rearing box to confined the mat.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 571-272-6889. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Son T. Nguyen/
Primary Examiner, Art Unit 3643